



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,407	11/28/2000	Masanori Akiyama	FUJY 18.006	6280
26304	7590	12/29/2004	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			MILLS, DONALD L	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/723,407

Applicant(s)

AKIYAMA ET AL.

Examiner

Donald L Mills

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 11, the claim specifies *said gateway* (See claim 11, line 17.) It is unclear from the context of the claim which “gateway” is referred.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Gossett Dalton, Jr. et al. (US 6,426,955 B1), hereinafter referred to as Dalton.

Regarding claim 11, Dalton discloses an Internet telephony call routing engine, which comprises:

Art Unit: 2662

*A receiving unit, when a call is set between the first line switching network and the second line switching network, receiving a call setting message from the first line switching network (Referring to Figure 2, source gateway 108 receives a call from calling party 104 destined to called party 106 across IP network 102, in which source gateway 108 receives a call setup message from calling party 104.)*

*An editing unit editing, when the call setting message is received by said receiving unit, a call-in enable/disable inquiry message (Referring to Figure 2, source gateway 108 makes an authorization request to service point 112 (editing unit) when a call setup message is received at the source gateway 108. See column 5, lines 11-12 and 33-35.)*

*A transmitting unit transmitting the call-in enable/disable inquire message to the IP packet network, the call-in enable/disable inquiry message is received by at least one of the plurality other gateways through the IP packet network (Referring to Figure 2, service point 112 determines which of the destination gateways 114a-c are eligible to complete the call via a message transmission spanning the IP network 102. See column 5, lines 14-19 and 25-30, and column 14, lines 18-21.)*

*A unit to receive a call-in enable/disable inquiry response message, the call-in enable/disable inquiry response message is transmitted from each of the other gateways, which can communicate the call setting message from said gateway to the second line switching network when receiving the call-in enable/disable inquiry message (Referring to Figure 2, service point 112 polls the destination gateways 114a-c to determine which are eligible to complete the call to the called party 118. See column 5, lines 14-19 and 25-30, and column 14, lines 18-21.)*

Art Unit: 2662

*A unit selecting one of the other gateways corresponding to a source of the call-in enable/disable inquiry responses message arriving at said gateway first/A unit transmitting the call setting message to said one of the other gateways which is selected* (Referring to Figure 2, the source gateway 108 selects a destination gateway 114 from among the list provided by the service point 112 and at step 204 sends a setup message to the selected destination gateway 114. See column 5, lines 32-35.)

Regarding claim 13, Dalton discloses:

*A table for storing a multicast address* (Referring to Figure 2, routing engine 110 comprises a routing table;)

*A reading unit reading out a multicast address corresponding to a call setting message, which is received from the first line switching network, from said table, wherein said editing unit edits an IP packet with the call-in enable/disable inquiry message, which is set, as a destination address, the read out multicast address* (Referring to Figure 2, routing engine 110 receives a call setup message from source gateway 108 and service point 112 polls (multicasts) the destination gateways 114a-c to determine which are eligible to complete the call to the called party 118. See column 5, lines 14-19 and 25-30, and column 14, lines 18-21.)

*Said transmitting unit transmitting the edited IP packet to the IP packet network so that the call-in enable/disable inquiry message is received at least one of the other gateways* (Referring to Figure 2, service point 112 determines which of the destination gateways 114a-c are eligible to complete the call via a message transmission spanning the IP network 102. See column 5, lines 14-19 and 25-30, and column 14, lines 18-21.)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gossett Dalton, Jr. et al. (US 6,426,955 B1), hereinafter referred to as Dalton.

Regarding claim 1, Dalton discloses an Internet telephony call routing engine, which comprises:

*The first gateway, when a call is set between the first line switching network and the second line switching network through the IP packet network, receiving a call setting message from the first line switching network (Referring to Figure 2, source gateway 108 routes traffic between calling party 104 and called party 106 across IP network 102, in which source gateway 108 receives a call setup message from calling party 104.)*

*The first gateway transmitting a call-in enable/disable inquiry message to the IP packet network to select one of the second gateways which can communicate the call setting message from the first gateway to the second line switching network; the call-in enable/disable inquiry message is received by at least one of the second gateways through the IP packet network (Referring to Figure 2, source gateway 108 makes an authorization request to service point 112, across the IP network 102, to determine which of the destination gateways 114a and 114b are eligible to complete the call, at step 204 the source gateway 108 sends a setup message to the*

Art Unit: 2662

selected destination gateway 114 across the IP network 102. See column 5, lines 11-12 and 33-35.)

*Judging whether the second gateway itself can communicate the call setting message to the second line switching network so that each of the second gateways transmits a call-in enable/disable inquiry response message to the first gateway only when it is judged that the second gateway itself can communicate the call setting message to the second line switching network, the call-in enable/disable inquiry response message is received by the first gateway through the IP packet network (Referring to Figure 2, service point 112 determines which of the destination gateways 114a and 114b are eligible to complete the call, destination gateways 114 receive an authorization ticket which allows a destination gateway 114 to accept the call knowing that it has been authorized by the service point 112 for communication with source gateway 108 through IP network 102. See column 5, lines 14-19 and 25-30.)*

*The first gateway selecting one of the second gateways transmitting the call-in enable/disable inquiry response message, and transmitting the call setting message to the selected gateway (Referring to Figure 2, the source gateway 108 selects a destination gateway 114 from among the list provided by the service point 112 and at step 204 sends a setup message to the selected destination gateway 114. See column 5, lines 32-35.)*

Dalton does not disclose each of the second gateways judging whether the second gateway itself can communicate the call setting message to the second line switching network.

Dalton teaches a single service point 112 that communicates with gateways over the Internet 102 that provides routing information (judges whether communication to devices can be accomplished or not) to the source gateway 108 (See column 4, lines 36-38.) In addition, Dalton

Art Unit: 2662

teaches that the service point **112** can be incorporated as a single system or any number of distributed systems (See column 4, lines 33-35.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the single system Internet telephony call routing engine of Dalton as a distributed system that resides with each destination gateway. One of ordinary skill in the art at the time the invention was made would have been motivated to do so in order to employ a service point operation that spans both home and visitors networks that maintain independent routing, billing and service related operations as taught by Dalton (See column 4, lines 22-32.) An added benefit of doing so, would allow multiple operators to charge rates consistent with their business models independent of their competitors.

Regarding claim 2, the primary reference further teaches *wherein the first gateway selects one of the second gateways corresponding to a source of the call-in enable/disable inquiry response message arriving at the first gateway first* (Referring to Figure 2, the source gateway **108** selects a destination gateway **114** from among the list provided by the service point **112** and at step **204** sends a setup message to the selected destination gateway **114**. See column 5, lines 32-35.)

Regarding claim 3, the primary reference further teaches *each of the second gateways participates or leaves with respect to a multicast group for receiving the multicast call-in enable/disable inquiry message, dynamically; and the multicast call-in enable/disable inquiry message is given only to each of the second gateways which are participating in the multicast group* (Referring to Figure 2, service point **112** determines which of the destination gateways **114a** and **114b** are eligible to complete the call, destination gateways **114** receive an



Art Unit: 2662

authorization ticket (multicast inquiry message transmitted only to the second gateways which are participating) which allows a destination gateway **114** to accept the call knowing that it has been authorized by the service point **112** for communication with source gateway **108** through IP network **102**. See column 5, lines 14-19 and 25-30.)

Regarding claim 4, the primary reference further teaches *wherein each of the second gateways leaves from the multicast group if the second gateway itself cannot communicate the call setting message from the first gateway to the second line switching network* ((Referring to Figure 2, service point **112** determines which of the destination gateways **114a** and **114b** are eligible to complete the call, destination gateways **114** receive an authorization ticket which allows a destination gateway **114** to accept the call (second gateways that cannot communicate the call setting do not participate) knowing that it has been authorized by the service point **112** for communication with source gateway **108** through IP network **102**. See column 5, lines 14-19 and 25-30.)

Regarding claim 5, the primary reference further discloses *wherein each of the second gateways participates in the multicast group if the second gateway itself can communicate the call setting message from the first gateway to the second line switching network* (Referring to Figure 2, service point **112** determines which of the destination gateways **114a** and **114b** are eligible to complete the call, destination gateways **114** receive an authorization ticket (multicast inquiry message transmitted only to the second gateways which are participating) which allows a destination gateway **114** to accept the call knowing that it has been authorized by the service point **112** for communication with source gateway **108** through IP network **102** for the called party **118**. See column 5, lines 14-19 and 25-30.)

Regarding claims 6 and 7 as explained above in the rejection statement of claim 1, Dalton discloses all of the claim limitations of claim 1. Dalton further discloses:

*The first gateway, when the first gateway cannot receive the call-in enable/disable inquiry response message from all the second gateways, transmitting the call setting message to a third gateway, the third gateway linking the IP packet network and a line switching network, the line switching network is connected* (Referring to Figure 2, source gateway 108 makes an authorization request to service point 112, across the IP network 102, to determine which of the destination gateways 114a, 114b (second gateways) or 114c (third gateway) are eligible to complete the call, at step 204 the source gateway 108 sends a setup message to the selected destination gateway 114c if 114a and 114b are unavailable across the IP network 102 for communication with the called party 118. See column 5, lines 11-12 and 33-35.)

*The third gateway, when receiving the call setting message from the first gateway, transmitting the call setting message to the line switching network* (Referring to Figure 2, the source gateway 108 selects a destination gateway 114 from among the list provided by the service point 112 and at step 204 sends a setup message to the selected destination gateway 114 for transmission to the called party 118 across PSTN 106. See column 5, lines 32-35.)

Dalton does not disclose *a third line switching network and the third line switching network, when receiving the call setting message from the third gateway, transmitting the call setting message to the second line switching network*

Dalton teaches a single service point 112 that communicates with gateways over the Internet 102 that provides routing information to the source gateway 108 for calls placed

Art Unit: 2662

between a calling party **104** from PSTN **105** and a called party **118** from PSTN **106** (See column 4, lines 36-38.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the PSTN **106** as two circuit switched networks, to create a total of three PSTN's, and forward calls between them in the system of Dalton. One of ordinary skill in the art at the time the invention was made would have been motivated to do so in order to transmit calls between users spanning multiple circuit switched networks. An added benefit of doing so, this would allow for increased revenue since more users could be supported.

Regarding claim 8, the primary reference further teaches *each of the third gateways participates or leaves with respect to a multicast group for receiving the multicast call-in enable/disable inquiry message, dynamically; and the multicast call-in enable/disable inquiry message is given only to each of the third gateways which is participating in the multicast group* (Referring to Figure 2, service point **112** determines which of the destination gateways **114a**, **114b**, or **114c** (third gateway) are eligible to complete the call, destination gateways **114** receive an authorization ticket (multicast inquiry message transmitted only to the second gateways which are participating) which allows a destination gateway **114** to accept the call knowing that it has been authorized by the service point **112** for communication with source gateway **108** through IP network **102**. See column 5, lines 14-19 and 25-30.)

Regarding claim 9, the primary reference further teaches *wherein the first gateway unicasts the call setting message to a specific gateway, which is one of the second gateways, through said IP packet network* (Referring to Figure 2, the source gateway **108** selects a destination gateway **114** from among the list provided by the service point **112** and at step **204**

Art Unit: 2662

sends a setup message (unicast) to the selected destination gateway **114** via IP network **102**. See column 5, lines 32-35;) and

*thereafter, when the specific gateway cannot communicate the call setting message to the second line switching network, the first gateway multicasts the call-in enable/disable inquiry message to the IP packet network* (Referring to Figure 2, should the destination gateway become unavailable, the service point **112** determines which of the destination gateways **114a-c** are eligible to complete the call, destination gateways **114** receive an authorization ticket (multicast inquiry message) which allows a destination gateway **114** to accept the call knowing that it has been authorized by the service point **112** for communication with source gateway **108** through IP network **102** for communication between the circuit switched networks **105** and **106**. See column 5, lines 14-19 and 25-30.)

Regarding claim 10, the primary reference further teaches *wherein when the first gateway receives the call setting message from the first line switching network, the first gateway selects either unicasting the call setting message to a specific gateway, which is one of the second gateway, or multicasting the call-in enable/disable inquiry message to the IP packet network* (Referring to Figure 2, the source gateway **108** selects a destination gateway **114** from among the list provided by the service point **112** and at step **204** sends a setup message (unicast) to the selected destination gateway **114** via IP network **102**. See column 5, lines 32-35. Should the destination gateway become unavailable, the service point **112** determines which of the destination gateways **114a-c** are eligible to complete the call, destination gateways **114** receive an authorization ticket (multicast inquiry message) which allows a destination gateway **114** to accept the call knowing that it has been authorized by the service point **112** for communication

Art Unit: 2662

with source gateway 108 through IP network 102 for communication between the circuit switched networks 105 and 106. See column 5, lines 14-19 and 25-30.)

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-11 and 13 have been considered but are moot in view of the new grounds of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

Art Unit: 2662


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

*Or m*

December 23, 2004

  
HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600